

# APCD Analytic Workgroup: Enhancing data quality by sharing DHCFP's experience with claims analysis

November 15, 2011



DIVISION OF  
Health Care  
Finance and Policy

# Introductions

- Miriam Drapkin (Interim Assistant Commissioner, Health Research and Policy)
- Alex Lai (Manager of Research Methodologies, Health Research and Policy)
- Betty Harney (Director of Data Enhancement and Standardization)
- Paul Smith (APCD Liaison)
- Marc Prettenhofer (Project Manager – Senior Business Analyst)
- Nga Vuong (APCD Analyst)
- Adam Tapply (Intern)

# Objectives for today's meeting

- Review feedback and questions from the October 18 APCD Analytic Workgroup meeting
- Introduce two Massachusetts government agency uses of the APCD:
  - DHCFP's annual Cost Trends reporting
  - Health Care Quality and Cost Council's (HCQCC) *My Health Care Options* website
- Review DHCFP's experiences with Cost Trends and HCQCC analysis
- Discuss potential solutions to enhance data quality in release files
- Address questions from workgroup participants

# Review feedback and questions from the October 18<sup>th</sup> APCD Analytic Workgroup meeting

- Will the APCD include Medicare and Medicaid data?
- What are the application requirements and fees for the APCD release files? When will the APCD be available for release?
- How will other government agencies use the APCD?
- How can participants submit ideas and questions for future workgroup meetings?



# DHCFP is required to conduct an annual study regarding health care cost trends in Massachusetts

## **Premium Levels and Trends in Private Health Plans: 2007-2009**

- The report discusses enrollee demographics in the Massachusetts commercial markets, trends in premiums paid by employers and consumers for health insurance, the medical expenses and retention charges included in those premiums, and the impact of premium trends on the health insurance purchasing decisions of employers and individuals

## **Price Variation in Massachusetts Health Care Services**

- The report examines the prices paid by private health plans for commercially insured members in three service categories: inpatient hospital care, outpatient hospital care, and physician and other professional services. In each category, a sample of high-volume health care services was selected to maximize comparability across providers.

## **Trends in Health Expenditures**

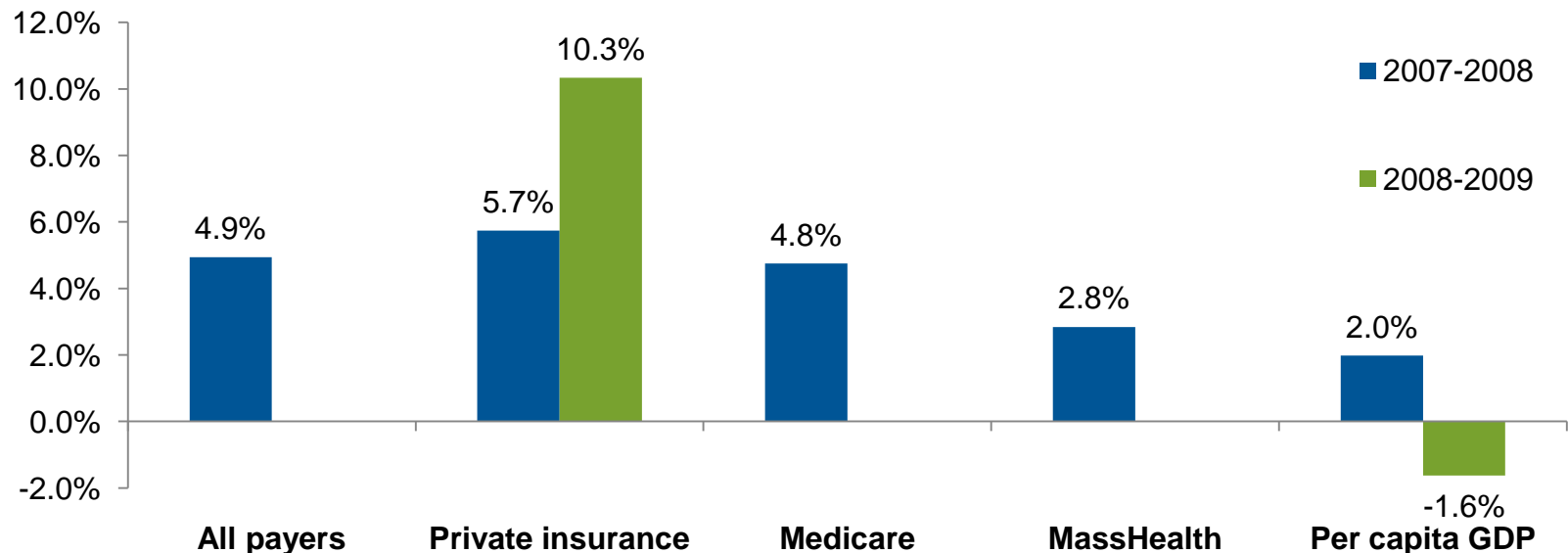
- This report documents the major trends in health care spending for care covered by fully insured and self-insured comprehensive private health plans in Massachusetts from 2007 to 2009, as well as trends in Medicare and MassHealth spending from 2007 to 2008.

**For more information:** [www.mass.gov/dhcfp/costtrends](http://www.mass.gov/dhcfp/costtrends)

# Massachusetts' spending growth outpaced the nation and the economy

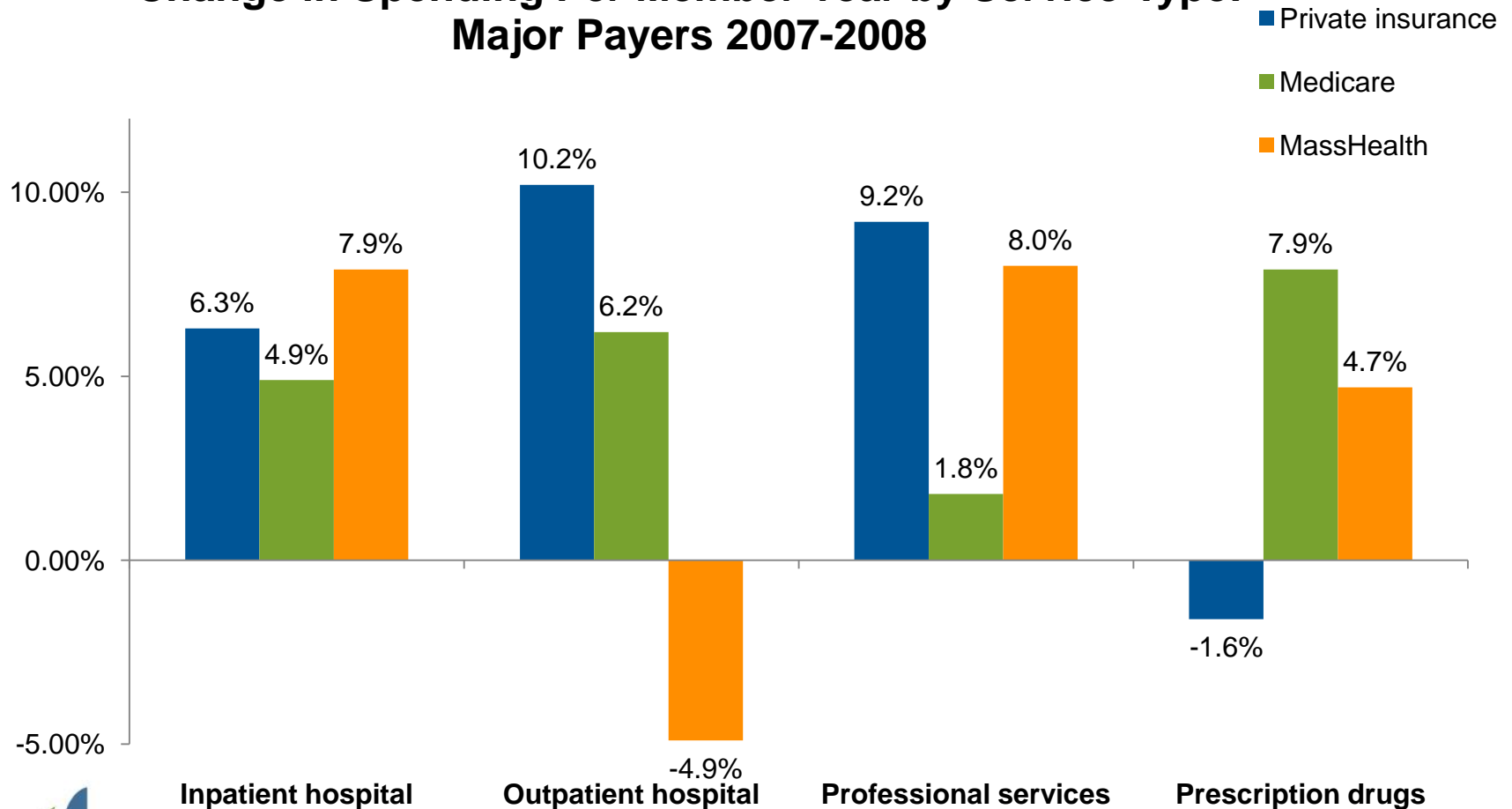
- Privately insured spending grew faster than publicly insured spending per member year in 2008, and both grew faster than Massachusetts' economy.

**Change in Health Care Spending Per Member Year  
by Payer and Massachusetts GDP Per Capita, 2007-2009**



# Cost Trends 2011 – Findings on growth in spending by market sector and service types

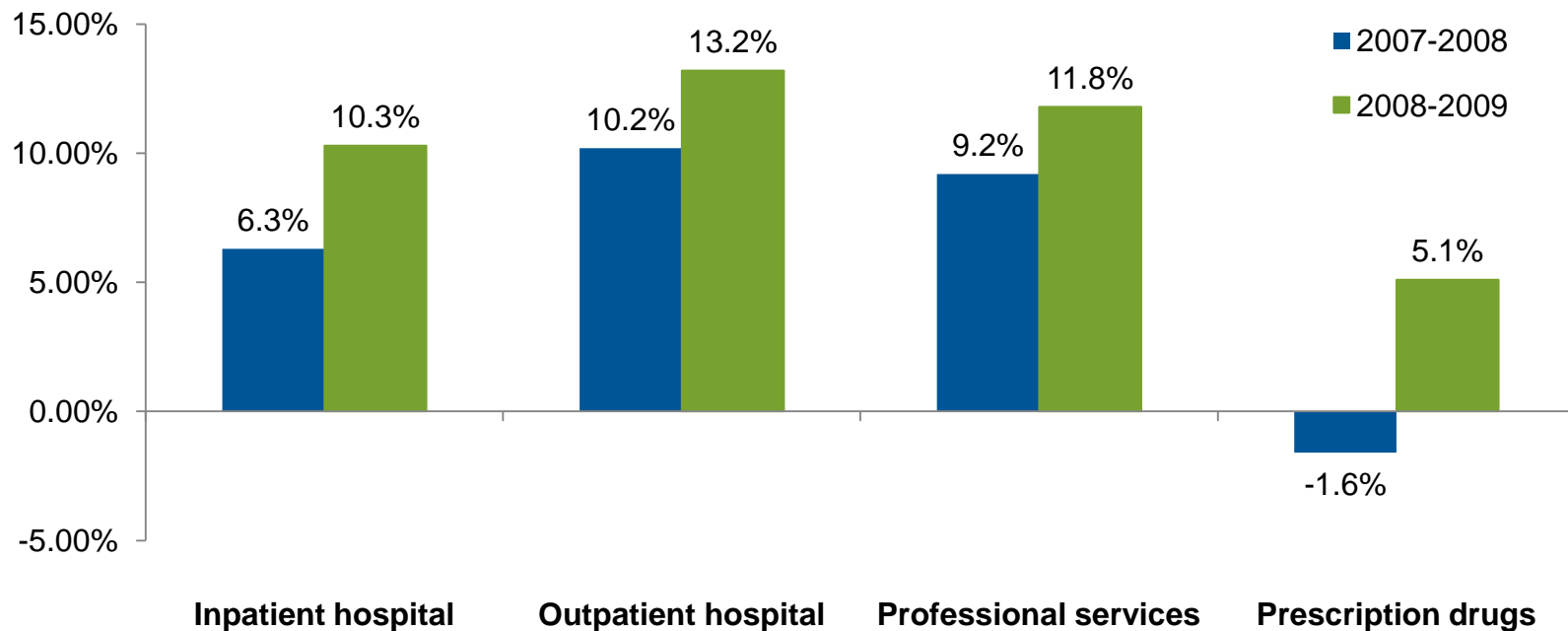
## Change in Spending Per Member Year by Service Type: Major Payers 2007-2008





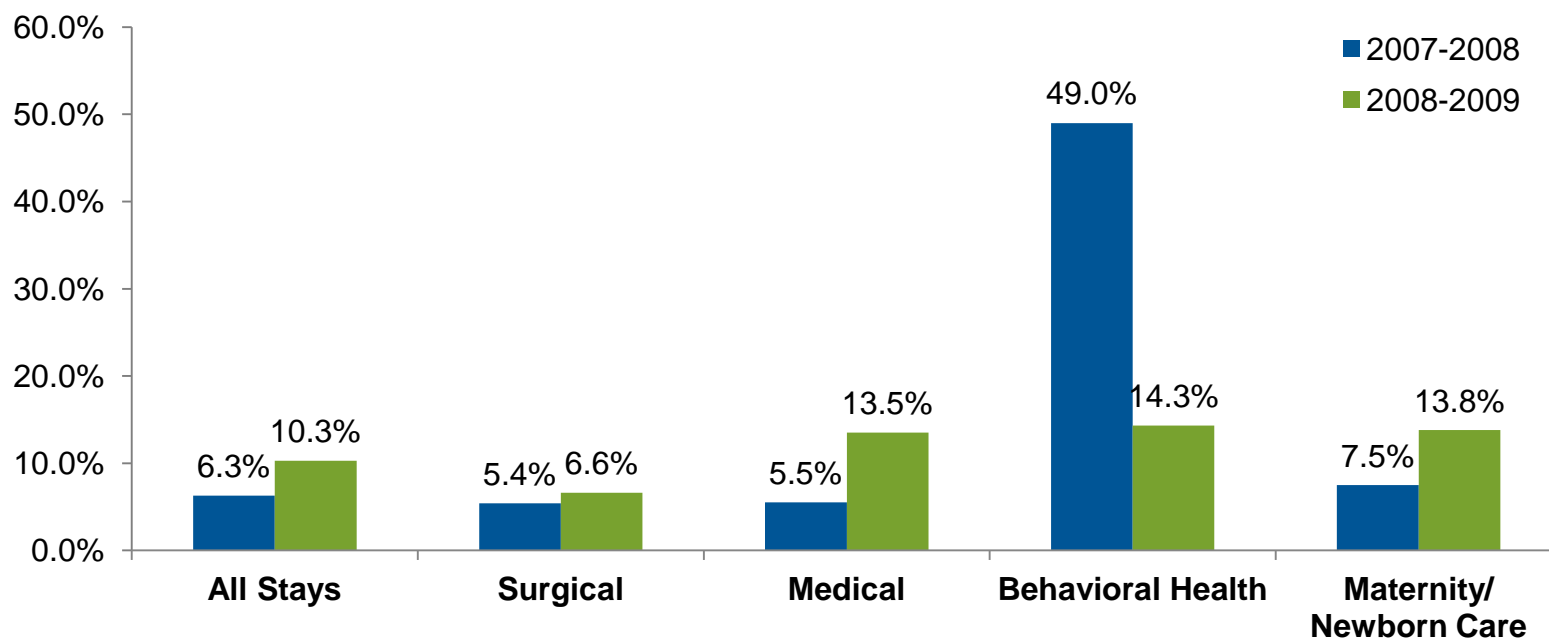
# Outpatient and professional services drove 84% of growth in private insurance spending in 2009

**Growth in Privately Insured Spending per Member Year  
by Service Type 2007-2009**



# Inpatient spending growth was greatest for behavioral health admissions, but accounts for only 2% of total spending

## Growth in Privately Insured Inpatient Care Spending Per Member Year by Type of Admission



# MyHealthCareOptions Website

The MyHealthCareOptions website was launched in December 2008. It was designed to inform consumers about cost and quality ratings for health care providers across the state, with the goal of improving health care quality through transparency and comparative quality information.

Visitors to the site can search these ratings by location, provider, or medical condition or procedure. Information comes from state and federal databases as well as other independent and trusted sources.

The website provides information on the average costs for conditions and procedures that are managed in a hospital setting, drawn from a per case analysis of the HCQCC database of commercial health plan claims.



## Comparison of Providers

[Start New Search](#)
[Return to Search Results](#)
[Bookmark](#)

### Choose a Topic

#### Patient Safety

[Influenza Vaccination](#)
[Patient Safety](#)
[Serious Reportable Events](#)
[Surgical Care](#)

#### Patient Experience

[Patient Experience](#)

#### Bone and Joint Care

[Back Procedure](#)
[Hip Fracture](#)
[Hip Replacement](#)
[Knee Replacement](#)

#### Cardiovascular Disease

[Angioplasty](#)
[Bypass Surgery](#)
[Cardiac Screening Tests](#)
[Heart Attack](#)
[Heart Failure](#)
[Heart Valve Surgery](#)
[Stroke](#)

#### Digestive System

[Gall Bladder](#)
[Intestinal Surgery](#)
[Weight-loss Surgery](#)

### Hip Replacement

People with severe arthritis or other hip problems may choose to have hip replacement surgery. This is when doctors replace the damaged hip with a prosthetic (artificial or mechanical) one. [\(more\)](#)

Diagnostic classification: Hip Replacement (APR-DRG 301)

[Summarized Report](#)
[View Detailed Report](#)
[View Statewide Procedure Costs](#)

#### Quality of Care

[\(more\)](#)

	Mount Auburn Hospital	New England Baptist Hospital
Quality Rating	★★	★★
Statistical Significance	Not Different from State Average Quality	Not Different from State Average Quality

#### Cost of Care

[\(more\)](#)

	Mount Auburn Hospital	New England Baptist Hospital
Cost Rating	\$	\$\$\$
Statistical Significance	Below Median State Cost	Above Median State Cost

Heart Failure

Heart Valve Surgery

Stroke

## Digestive System

Gall Bladder

Intestinal Surgery

Weight-loss Surgery

## Obstetrics

Cesarean Section

Normal Newborn

Ultrasound

Vaginal Delivery

## Outpatient Diagnostic

CT Scan

MRI

X-Ray

## Outpatient Radiation

Radiation Treatment

## Respiratory

COPD

Pneumonia

## Women's Health

Mammogram

## Cost of Care

Note: Because the numbers shown below were rounded for this report, the values may appear inconsistent with the dollar sign ranking. For more information, click here: [\(more\)](#)

	Mount Auburn Hospital	New England Baptist Hospital	State Wide
<b>Cost Rating</b>	<b>\$</b>	<b>\$\$\$</b>	
<b>Statistical Significance</b>	Below Median State Cost	Above Median State Cost	
<b>High Cost</b>	\$22,000	\$25,500	\$26,500
<b>Median Cost</b>	\$18,500	\$25,000	\$22,000
<b>Low Cost</b>	\$17,000	\$16,500	\$16,000

Data Provided by Health Care Quality and Cost Council. (HCQCC) [7/1/2008 - 6/30/2009 with claims paid through 12/31/2009].

## Number and Severity of Cases

[\(more\)](#)

	Mount Auburn Hospital	New England Baptist Hospital	State Wide
<b>Number of Patients</b>	187	2010	10399
<b>Percentage of patients whose severity of illness was major or extreme (higher is more experience with complex patients)</b>	7%	8%	13%

Data Provided by Division of Health Care Finance and Policy [10/1/2008 - 9/30/2009]

## Quality of Care - State Legend



Below State Average Quality.

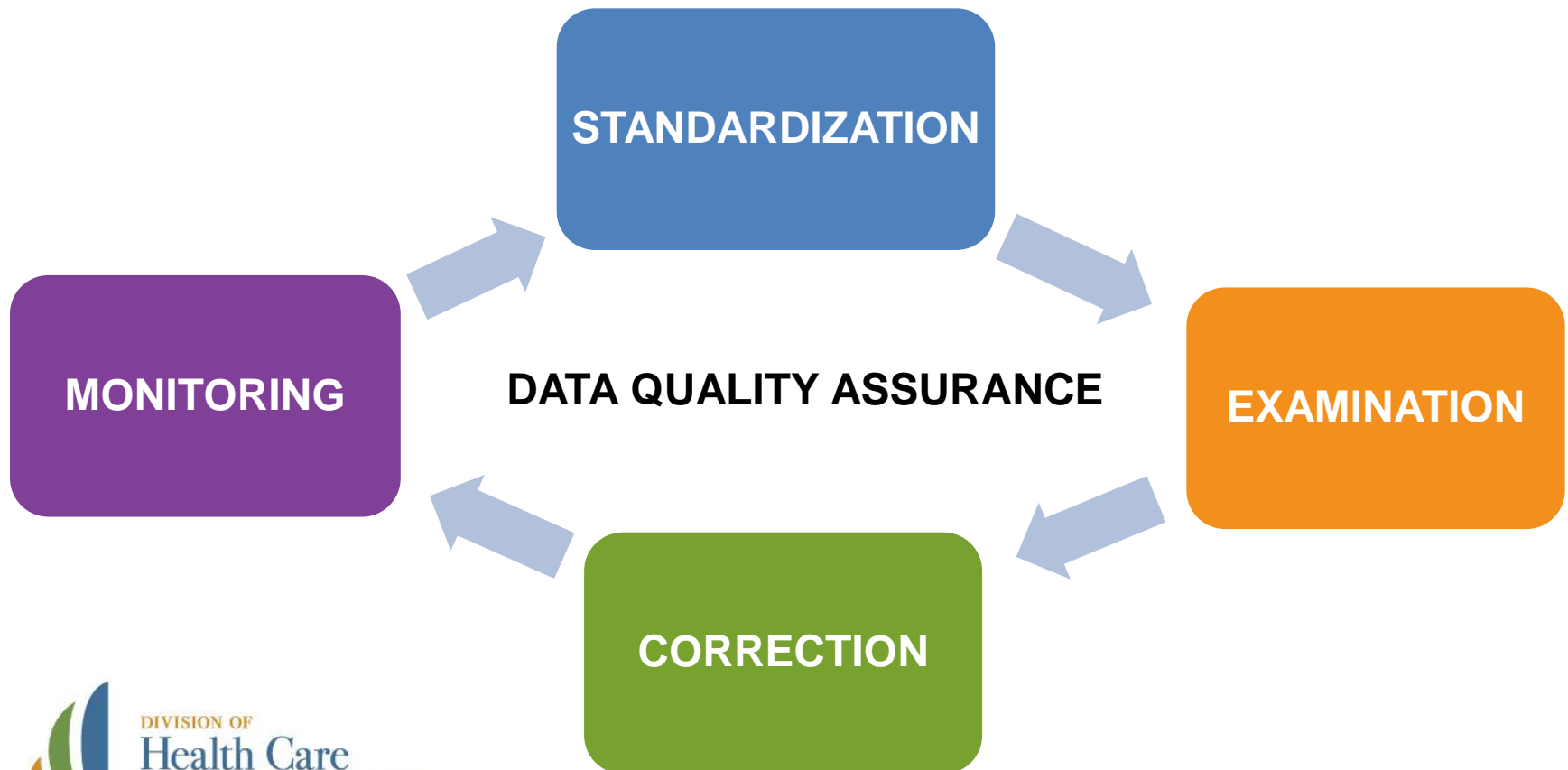


Not Different from State Average Quality.



# How does the APCD define data quality assurance?

- A process which utilizes various tools for standardization, examination, correction, and monitoring of data in order to facilitate reporting of accurate and reliable analyses.



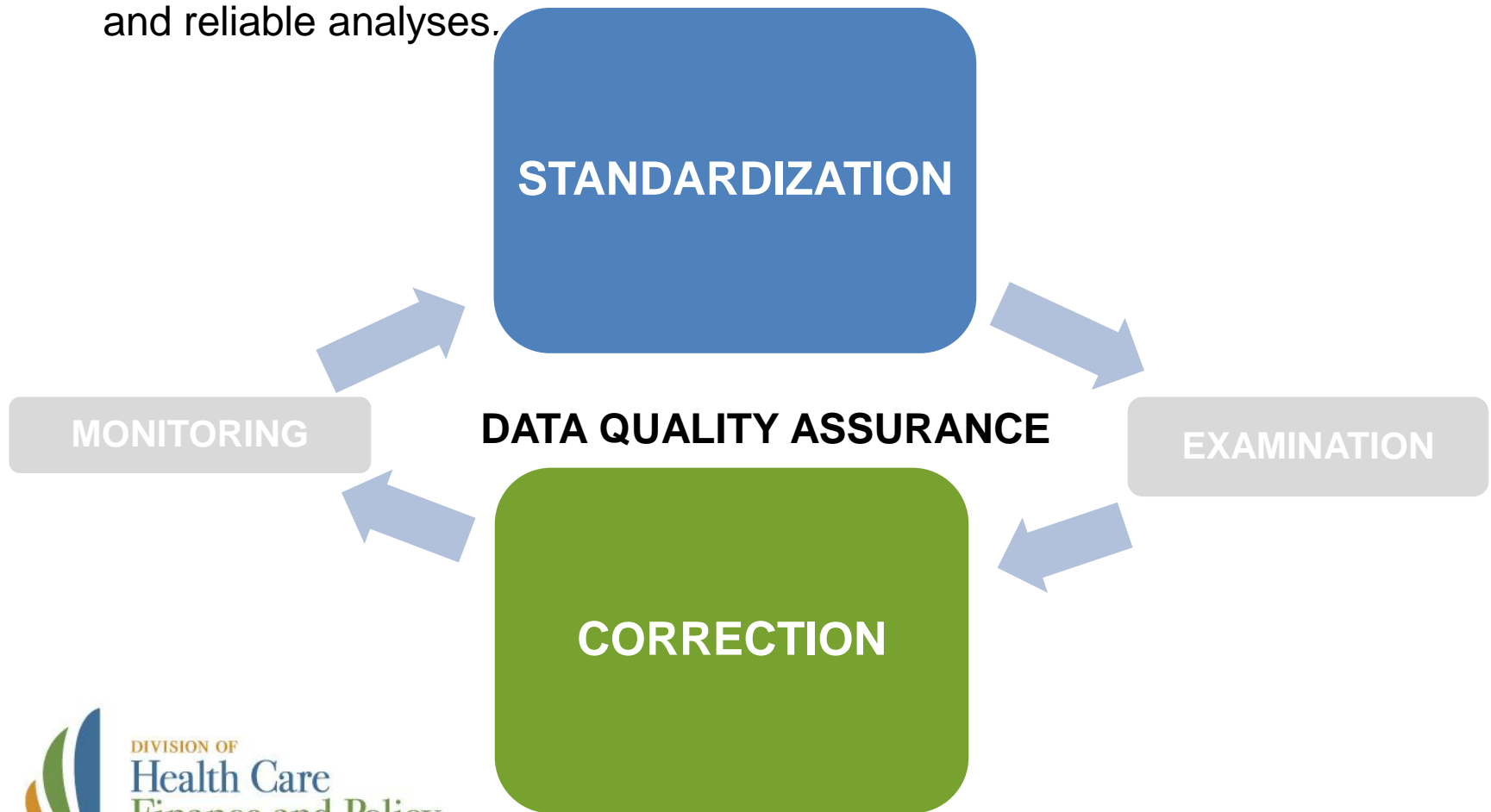
# Efforts to enhance data quality assurance

Standardization	Examination	Correction	Monitoring
Alignment of technical specifications and definitions	Implementation of variance request process	Resubmission or replacement of data	Passed, dropped, failed reports to data submitters
Documentation of data intake edits and rules	Application of data intake rules and edits	Removal of data inconsistencies and anomalies	Documentation of potential changes to technical specifications
APCD Council / NAHDO efforts to standardize collection of core data elements ( <a href="#">Link to Fact Sheet</a> )	Production of QA measures and reports	Interpolation of data	Trend analysis



# How does the APCD define data quality assurance?

- A process which utilizes various tools for standardization, examination, correction, and monitoring of data in order to facilitate reporting of accurate and reliable analyses.



# DHCFP's annual Cost Trends reporting – *Efforts to ensure data quality assurance*

Standardization	Examination	Correction	Monitoring
Versioning of Claims		<ol style="list-style-type: none"><li>1) Payer-specific claims versioning had to be reconciled</li><li>2) APCD specs standardize Claims Versioning</li></ol>	
Creating an Inpatient File for cost analysis		<ol style="list-style-type: none"><li>1) How should the methodology for creating an Inpatient File for cost analysis differ from clinical analysis?</li><li>2) How would the design of an Inpatient File differ between private payer and public payer data?</li></ol>	

# What impact does standardized claims versioning have on research and analysis?

- What thoughts do you have related to claims versioning?
- How “good” does data have to be to support your research and analyses?
- What about the run-out period? DHCFP currently creates data extracts based on 6-month of claims run-out. Does it make sense to have shorter or longer run-out for other purposes? What do you need for your analysis?

3 months of claims run-out = ~80% completion

4-5 months of claims run-out = ~90% completion

6 months of claims run-out = ~95% completion

\*Medicaid data may be an exception where adjustments are made for a longer period.

# What methodological approaches are important to consider in designing an inpatient file?

- How does the design of the inpatient file affect analysis?
- How should a standard pre-determined module of an inpatient file for release be defined?
  - Different inpatient files for cost analysis versus clinical analysis?
  - Different inpatient files for private payer versus public payer data?

# Q&A session

- Questions from webinar participants
- Questions emailed to DHCFP ([dhcfp.apcd@state.ma.us](mailto:dhcfp.apcd@state.ma.us))
- Open discussion

# APCD Analytic and Technical Workgroups

## Upcoming Schedule

**APCD Technical Workgroup**  
4<sup>th</sup> Tuesday of each month

Nov. 22<sup>nd</sup> @ 2pm

**APCD Analytic Workgroup**  
3<sup>rd</sup> Tuesday of each month

Dec. 20<sup>th</sup> @ 2pm

For meeting materials and information, please visit:

[www.mass.gov/dhcfp/apcd](http://www.mass.gov/dhcfp/apcd)